

CLAIMS

1. (Currently Amended) A lid for a can body comprising:
a center panel having a central axis that is perpendicular to a diameter of the outer rim of said lid;

a reinforcing bead extending radially outward from the periphery of the center panel;

~~an annular countersink surrounding said center panel, said annular countersink having an interior wall joined to said center panel along an upper edge, a curved bottom portion and an outer wall;~~

a nonlinear chuckwall having a first end and a second end, extending radially outward from an upper portion of the outer wall of wherein said first end of the chuckwall is connected to the said annular countersink reinforcing bead, and wherein a line passing through the first and second ends of said chuckwall is at an angle with respect to said central axis of the center panel of from about 20° to about 80°; and

a peripheral curl portion having a height less than 0.091 inches extending ~~radially outward~~ from said chuckwall, wherein the diameter of the center panel is less than 80% of the diameter of the peripheral curl portion; and

~~wherein said chuckwall is arcuate and has a radius of curvature of from about 0.4 to about 1 inch, the center point of said radius located below the profile of said lid.~~

2. (Currently Amended) The can lid according to claim 1 wherein a line passing through the first and second ends of said chuckwall is at an angle with respect to said central axis of the center panel of from about 30° to about 60°.

3. (Currently Amended) The can lid according to claim 1 wherein a line passing through the first and second ends of said chuckwall is at an angle with respect to said central axis of the center panel of from about 40° to about 50°.

4. (Original) The can lid according to claim 1 wherein the height of said peripheral curl portion is from about 0.04 to about 0.09 inches.

5. (Original) The can lid according to claim 1 further comprising a transitional portion extending radially outward from said chuckwall, wherein the peripheral curl portion extends radially outward from said transitional portion.

6. (Original) The can lid according to claim 1 wherein said center panel is substantially flat or planar.

7. (Original) The can lid according to claim 1 wherein said center panel is arcuate.

8-9. (Cancelled)

10. (Original) The can lid according to claim 1 further comprising a step portion extending radially outward from said chuckwall.

11. (Original) The can lid according to claim 10 wherein said step portion is arcuate.

12. (Original) The can lid according to claim 11 wherein said arcuate step portion has a radius of curvature of from about 0.02 to about 0.06 inches, the center-point of said radius being located above the profile of said lid.

13. (Original) The can lid according to claim 10 wherein said chuckwall is an arcuate chuckwall.

14. (Currently Amended) The can lid according to claim 13 wherein a line passing through the first and second ends of said arcuate chuckwall is at an angle with respect to said central axis of the center panel of from about 30° to about 60°.

15. (Currently Amended) The can lid according to claim 13 wherein a line passing through the first and second ends of said arcuate chuckwall is at an angle with respect to said central axis of the center panel of from about 40° to about 50°.

16. (Original) The can lid according to claim 13 wherein said arcuate chuckwall has a radius of curvature of from about 0.4 to about 1 inch, the center-point of said radius located below the profile of said lid.

17. (Original) The can lid according to claim 1 wherein said annular countersink has a height of from about 0.030 to about 0.115 inches.

18. (Original) The can lid of claim 17 wherein said chuckwall is an arcuate chuckwall having a radius of curvature of from about 0.4 to about 1 inch, the center-point of said radius being located below the profile of said lid.

19. (Original) The can lid of claim 17 further comprising a step portion extending radially outward from said chuckwall.

20. (Original) The can lid according to claim 19 wherein said chuckwall is an arcuate chuckwall.

21. – 26. (Canceled)

27. (New) The can lid according to claim 1 wherein said reinforcing bead is an annular countersink.

28. (New) The can lid according to claim 1 wherein said reinforcing bead is an annular fold.

29. (New) The can lid according to claim 28 wherein said annular fold is an isocline fold.

30. (New) A lid for a can body comprising:

a center panel having a central axis that is coaxial with the longitudinal axis of the can body;
a first member having an interior wall, a curved bottom portion and an outer wall, wherein the interior wall is joined to the center panel at its upper edge and the height of the interior wall is greater than or equal to the height of the outer wall;

a second member extending radially outward from an upper portion of said outer wall, the second member having a first end and a second end, wherein a line passing through the ends of said second member is at an angle with respect to said central axis of the center panel of from about 20° to about 80°, wherein the vertical-cross section forms a first curve that is comprised of a plurality of second curves; and

a peripheral curl portion extending radially outward from said second member, wherein the diameter of the center panel is less than 80% of the diameter of the peripheral curl portion.

31. (New) The lid of Claim 30, wherein the second curves comprise a Fourier cosine series.

32. (New) The lid of Claim 30, wherein the second curves comprise a Fourier sine series.

33. (New) The lid of Claim 30, wherein the second curves comprise a Fourier series.

34. (New) The lid of Claim 30, wherein the second curves comprise a Taylor series.

35. (New) The lid of Claim 30, wherein the second curves comprise lines.

36. (New) A lid for a can body comprising:
a center panel having a central axis that is coaxial with the longitudinal axis of the can body;
a first member having an interior wall, a curved bottom portion and an outer wall, wherein the interior wall is joined to the center panel at its upper edge and the height of the interior wall is greater than or equal to the height of the outer wall;

a second member extending radially outward from an upper portion of said outer wall, the second member having a first end and a second end, wherein a line passing through the ends of said second member is at an angle with respect to said central axis of the center panel of from about 20° to about 80°, wherein the function approximating the vertical cross-section of said second member is comprised of a linear combination of polynomial functions each having an order greater than or equal to one; and

a peripheral curl portion extending radially outward from said second member, wherein the diameter of the center panel is less than 80% of the diameter of the peripheral curl portion.

37. (New) The lid of Claim 36, wherein the linear combination of polynomial functions is a Fourier cosine series.

38. (New) The lid of Claim 36, wherein the linear combination of polynomial functions is a Fourier sine series.

39. (New) The lid of Claim 36, wherein the linear combination of polynomial functions is a Fourier series.

40. (New) The lid of Claim 36, wherein the linear combination of polynomial functions is a Taylor series.